



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,435	12/05/2005	Osamu Itatani	125433	2968
25944	7590	10/24/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320				
EXAMINER PARKER, FREDERICK JOHN				
ART UNIT 1762				
PAPER NUMBER				
DATE MAILED: 10/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,435	<b>Applicant(s)</b> ITATANI ET AL.	
	<b>Examiner</b> Frederick J. Parker	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12-5-05;8-10-06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claims 1-11 are objected to because of the following informalities: (1) use of the phrase “characterized in that” should be replaced with transitional language consistent with U.S. Patent practice. (2) wording of claim 10 is awkward; the Examiner suggests something like “A method of any one of the preceding claims further comprising the application of powder particles by ..... (add step) to the adhesive layer previously transferred to the workpiece”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 10-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for application of powder using powder additions to the container containing adhesive coated workpieces, and the applying powder via vibration of them (pages 15-16, Spec.), does not reasonably provide enablement for any powder coating means, e.g. fluidized bed, electrostatic spraying, kinetic spraying, etc. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to carry

Art Unit: 1762

out the invention commensurate in scope with these claims. The powder application is limited to the specific method of pages 15-16 of the Spec.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2,9,10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 2 is vague and indefinite because it is unclear how simply vibrating or stirring the medium and workpiece results in formation of an adhesive layer. The Examiner suggests additional descriptive wording, such as found in Spec. page 11, para. 1.

- Claim 9 is vague and indefinite because the conditions (e.g. temperature, pressure, etc) at which the adhesive material is “substantially non-volatile” is unstated, and any material is substantially non-volatile at some temperature, pressure, etc.

- Claim 10 is vague and indefinite because it refers to “one of the above-described methods for forming an adhesive layer” but no positive step is set forth for applying the particles; it is further vague and indefinite because the relative term “fine” fails to convey the intended particle size and the term would not be ascertainable by one skilled in the art.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1762

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,3,4 are rejected under 35 U.S.C. 102(b) as being anticipated by Satas (1989).

Satas discloses a pressure sensitive adhesive film consisting of a homogenous adhesive layer covered with a release paper (“adhesive layer formation medium”). The pressure is adhesive is bonded to a surface inherently by pressure by contact (“collide”) with a substrate, after which the release paper (“adhesive layer formation medium”) is removed, transferring a homogenous adhesive layer of consistent thickness to the surface. The teachings therefore meet the limitations of the claims as broadly interpreted by the Examiner.

9. Claims 1,3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 08-257484 (1996).

JP 08-257484 teaches to apply liquid adhesive coating material to a surface for circuit board applications by applying droplets of adhesive onto a transfer medium (pin 11) ( an “adhesive layer formation medium”) which is contacted via collision with an uncoated substrate (per claim 3) to transfer the adhesive to the substrate (= workpiece). See fig. 7, [0020]. The droplets are of similar size (fig. 6 a,b) to provide coating uniformity per claim 4. The teachings therefore meet the limitations of the claims as broadly interpreted by the Examiner.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1762

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-257484 in view of Charles US 2002/0032280.

JP 08-257484 is cited for the same reasons previously discussed, which are incorporated herein. While adhesives for the circuit board applications are not limited, specific properties thereof are not cited.

Charles teaches liquid adhesives for circuit board applications [0009] comprising epoxy resins, curing agent [0046], and fillers (e.g. silica, organic and inorganic microballons, etc

Art Unit: 1762

[0050] which necessarily act as spacer particles and includes applicants spacers of [0026]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the process of JP 08-257484 using the resinous adhesive compositions of Charles because the cited adhesives are taught for the same utility as the process of JP 08-257484, namely adhesives for circuit board applications, and hence there would have been a reasonable expectation of success.

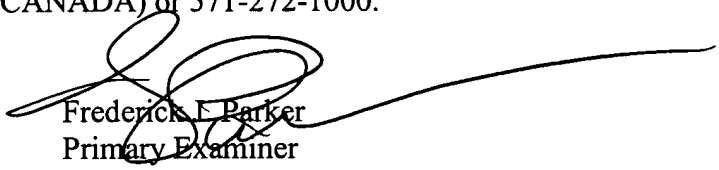
14. The Examiner would favorably consider patentability of claim 1 if claims 1 and 2 were combined in conjunction with the Examiner's suggestions cited above. New or amended claim versions are subject to an update search.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Frederick E. Parker  
Primary Examiner  
Art Unit 1762

fjp